CIVIL TECH LABS

Accredited by NABL as per ISO/ IEC 17025 : 2005

5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027

Ph: 080 - 4114 2867 / Mob. : 96862 31801, Email: civiltechlabs@gmail.com

T-2654

To,

Assistant Executive Engineer
Byatarayanapura Sub Division,
BBMP.

29th July 2014

Dear Sir,

Sub: Testing of Materials.

As requested, the required tests were carried out for the samples supplied by you, for the work of **'Improvements to Roads and Drains at Bharathnagara main road in Ward No.06 in Thanisandra Village Limits.'**

Please find the enclosed Test Reports of the above.

Thanking You,
For Civil Tech Labs

CIVIL TECH LABS BANGALORE

(KHUSHBOO L.)
Deputy Quality Manager

CIVILTECH LABS

TEST REPORT ON COARSE AGGREGATES 20mm ↓ Graded Ref:IS:383/2386

Name of the Client	AEE, Byatarayanapura Sub Division, BBMP
Name of Work	Improvements to Roads and Drains at Bharathnagara main road in Ward No.06 in Thanisandra Village Limits.
Agency Name	M/s. K. R. I. D.L.

Sample	Date of Testing	Specific Gravity	Absorption in %	IS Sieve Designation (mm)	Sieve Analysis (% Passing IS Sieve)	Grading Requirement As Per IS 383-1970	Remarks
20mm Down Graded	29/07/2014	2.64	0.32	**40**	100	**100**	Satisfies The Requirement
				20	99	**95-100**	
				10	48	**25-55**	
				4.75	8	**0-10**	

Note:

1. The results relate only to the items tested.
2. Report shall not be reproduced except in full, without the written approval of the lab.
3. Any correction invalidates this report.
4. The results are based on the test conducted on samples supplied by the client.

CIVIL TECH LABS
5, I Floor I Cross
Srinivasa Colony, Misssion Road
BANGALORE - 560 027

Lab Incharge
Civil Tech Labs

CIVIL TECH LABS BANGALORE

CIVILTECH LABS

TEST REPORT ON COARSE AGGREGATES 40mm ↓ Graded Ref:IS:383/2386

Name of the Client	AEE, Byatarayanapura Sub Division, BBMP
Name of Work	Improvements to Roads and Drains at Bharathnagara main road in Ward No.06 in Thanisandra Village Limits.
Agency Name	M/s. K. R. I. D.L.

Sample	Date of Testing	Specific Gravity	Absorption in %	IS Sieve designation (mm)	Sieve Analysis (% Passing IS Sieve)	Grading Requirement As Per IS 383-1970	Remarks
40mm Down Graded	29/07/2014	2.66	0.3	**80**	100	**100**	Satisfies The Requirements
				40	99	**95-100**	
				20	57	**30-70**	
				10	26	**10-35**	
				4.75	4	**0-5**	

Note:

1. The results relate only to the items tested.
2. Report shall not be reproduced except in full, without the written approval of the lab.
3. Any correction invalidates this report.
4. The results are based on the test conducted on samples supplied by the client.

CIVIL TECH LABS
5, I Floor I Cross
Srinivasa Colony, Misssion Road
BANGALORE - 560 027

Lab Incharge
Civil Tech Labs

CIVIL TECH LABS BANGALORE

CIVILTECH LABS

TEST REPORT ON FINE AGGREGATES Ref:IS:383/2386

Name of the Client	AEE, Byatarayanapura Sub Division, BBMP
Name of Work	Improvements to Roads and Drains at Bharathnagara main road in Ward No.06 in Thanisandra Village Limits.
Agency Name	M/s. K. R. I. D.L.

Sample	Date of Testing	Specific Gravity	IS Sieve designation (mm)	Sieve Analysis (% Passing IS Sieve)	Grading Requirement As Per IS 383-1970				Grading Zone
					ZONE-I	ZONE-II	ZONE-III	ZONE-IV	
Fine Aggregates	29/07/2014	2.56	10	100	100	100	100	100	II
			4.75	99	90-100	90-100	90-100	95-100	
			2.36	85	60-95	75-100	85-100	95-100	
			1.18	73	30-70	55-90	75-100	90-100	
			0.6	42	15-34	35-59	60-79	80-100	
			0.3	24	5-20	8-30	12-40	15-50	
			0.15	7	0-10	0-10	0-10	0-15	

Note:

1. The results relate only to the items tested.
2. Report shall not be reproduced except in full, without the written approval of the lab.
3. Any correction invalidates this report.
4. The results are based on the test conducted on samples supplied by the client.

CIVIL TECH LABS
5, I Floor I Cross
Srinivasa Colony, Misssion Road
BANGALORE - 560 027

Lab Incharge
Civil Tech Labs

CIVIL TECH LABS BANGALORE

CIVILTECH LABS

TEST REPORT ON CEMENT

Name of the Client	AEE, Byatarayanapura Sub Division, BBMP
Name of Work	Improvements to Roads and Drains at Bharathnagara main road in Ward No.06 in Thanisandra Village Limits.
Agency Name	M/s. K. R. I. D.L.

Tests on Cement	Test Date	Tests	Test Method As Per IS & Apparatus		Results		Requirements As Per IS 8112 1989	Remarks
			IS Code	Method	Value	Unit		
	29/07/2014	Initial Setting Time	**IS-4031 (Part-5) 1988**	VICAT	49	min	Not Less Than 30 Minutes	Satisfies Requirement
		Final Setting Time	**IS-4031 (Part-5) 1988**	VICAT	488	min	Not More Than 600 Minutes	Satisfies Requirement
		Soundness	**IS-4031 (Part-3) 1988**	LE-CHATELIER	3	mm	Not More Than 10 mm	Satisfies Requirement

Note:

1.The results relate only to the items tested.

2.Report shall not be reproduced except in full, without the written approval of the lab.

3.Any correction invalidates this report.

4.The results are based on the test conducted on samples supplied by the Client

CIVIL TECH LABS
5, I Floor I Cross
Srinivasa Colony, Misssion Road
BANGALORE - 560 027

Lab Incharge
Civil Tech Labs

CIVIL TECH LABS BANGALORE

CIVIL TECH LABS

Accredited by NABL as per ISO/ IEC 17025 : 2005

5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027

Ph: 080 - 4114 2867 / Mob. : 96862 31801, Email: civiltechlabs@gmail.com

T-2654

To,

Assistant Executive Engineer
Byatarayanapura Sub Division,
BBMP.

17th September 2014

Dear Sir,

Sub: Improvements to Roads and Drains at Bharathnagara main road in Ward No.06 in Thanisandra Village Limits.
Testing of cubes – Reg.

As requested the 28th day Compressive Strength Test of Cubes was carried out for the above work for the samples supplied by you.

Please find the enclosed Test Reports of the above.

Thanking you,

For Civil Tech Labs,

CIVIL TECH LABS BANGALORE

(KHUSHBOO L.)
Deputy Quality Manager

CIVIL TECH LABS
5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027
Ph: 080 - 4114 2867, Email: civiltechlabs@gmail.com

TEST REPORT

COMPRESSIVE STRENGTH TEST ON CONCRETE CUBES

Name & Address of the Customer	AEE, Byatarayanapura Sub Division, BBMP
Name of Work	Improvements to Roads and Drains at Bharathnagara main road in Ward No.06 in Thanisandra Village Limits.
Name of Agency	M/s. K. R. I. D.L.
Grade of Concrete	M-20
No. of cubes tested	3
Dimension of Specimen	150mmx150mmx150mm
Cross Sectional Area	22500 mm²
Technical Reference	IS: 516-1959 (Reaffirmed 2013)

Sl. No.	Identification	Date of Casting	Date of Testing	Age at test (Days)	Weight (Kg)	Failure Load (KN)	Compressive Strength (N/mm²)	Avg Compressive Strength (N/mm²)
1	CC-Work	20/08/2014	17/09/2014	28	8.19	490	**21.78**	**21.48**
2					8.17	475	**21.11**	
3					8.18	485	**21.56**	

Note:
1. The results relate only to the items tested.
2. Report shall not be reproduced except in full, without the written approval of the lab.
3. Any correction invalidates this report.
4. The results are based on the test conducted on samples supplied by the customer.

Lab Incharge
Civil Tech Labs

CIVIL TECH LABS BANGALORE

CIVIL TECH LABS

Accredited by NABL as per ISO/ IEC 17025 : 2005

5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027

Ph: 080 - 4114 2867 / Mob. : 96862 31801, Email: civiltechlabs@gmail.com

T-2654

To,

Assistant Executive Engineer
Byatarayanapura Sub Division,
BBMP.

24th September 2014

Dear Sir,

Sub: Testing of Wet Mix Macadam and Semi Dense Bituminous Concrete.

As requested, the required tests were carried out for the Wet Mix Macadam and Semi Dense Bituminous Concrete samples supplied by you, for the work of **'Improvements to Roads and Drains at Bharathnagara main road in Ward No.06 in Thanisandra Village Limits.**

Please find the enclosed Test Reports of the above.

Thanking You,
For Civil Tech Labs

Khushboo

CIVIL TECH LABS BANGALORE

(KHUSHBOO L.)
Deputy Quality Manager

CIVIL TECH LABS

5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027
Ph: 080 - 4114 2867, Email: civiltechlabs@gmail.com

TEST REPORT

TEST ON THE DETERMINATION OF BITUMEN CONTENT ON SEMI DENSE BITUMINOUS CONCRETE MIX-GRADE 2

Name & Address of the Customer	AEE, Byatarayanapura Sub Division, BBMP
Name of Work	Improvements to Roads and Drains at Bharathnagara main road in Ward No.06 in Thanisandra Village Limits.
Name of the Agency	M/s. K. R. I. D.L.
Date of Testing	24/09/2014

A)

Sl. No.	Test	Test Method	Technical Reference
1	Extraction of mineral aggregate	**Test Method A (Centrifuge Method)**	**ASTM: D2172/ D2172M-11**
2	Determination of amount of mineral matter/fines in the extract	**Ashing Method**	

B)

Specification: As Per MORTH (4th Revision) Table 500-15, Bitumen Content for SDBC Grade-2 is MIN 5%

Sl. No.	Description	Values
1	Weight of bituminous mixture before extraction test, **W_1 g**	**2000**
2	Weight of mineral aggregate obtained from centrifuge extractor, **W_2 g**	**1882.4**
3	Weight of mineral matter in the total volume of extract (by ashing), **W_3 g**	**12.5**
4	Total weight of aggregate in the bituminous mixture, **W_4 g = (W_2 +W_3) g**	**1894.9**
5	Total weight of Bitumen extracted from the mixture, **W_5 g = (W_1-W_4) g**	**105.1**
6	Bitumen content in %, **(W_5/W_1) %**	**5.26**

Remarks	**Satisfies the requirements.**

Note:

1. The results relate only to the items tested.
2. Report shall not be reproduced except in full, without the written approval of the lab.
3. Any correction invalidates this report.
4. The results are based on the test conducted on samples supplied by the customer.

CIVIL TECH LABS BANGALORE

Lab Incharge
Civil Tech Labs

CIVIL TECH LABS
5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027
Ph: 080 - 4114 2867, Email: civiltechlabs@gmail.com

TEST REPORT

GRADATION TEST ON SEMI DENSE BITUMINOUS CONCRETE MIX GRADE - 2

Name & Address of the Customer	AEE, Byatarayanapura Sub Division, BBMP
Name of Work	Improvements to Roads and Drains at Bharathnagara main road in Ward No.06 in Thanisandra Village Limits.
Name of the Agency	M/s. K. R. I. D.L.
Date of Testing	24/09/2014
Technical Reference	IS : 2386(Part I)–1963 (Reaffirmed 2011)

	Sample-1		
IS Sieve Designation (mm)	**% By Weight Passing IS Sieve as per MORTH (4th Revision) Table 500-15 for SDBC Grade-2**	**Actual % By Weight Passing IS Sieve**	**Remarks**
13.2	100	**100**	**Satisfies the requirements**
9.5	90-100	**99.1**	
4.75	35-51	**45.2**	
2.36	24-39	**27.3**	
1.18	15-30	**23.4**	
0.3	9-19	**16.1**	
0.075	3-8	**6.5**	

Note:

1. The results relate only to the items tested.
2. Report shall not be reproduced except in full, without the written approval of the lab.
3. Any correction invalidates this report.
4. The results are based on the test conducted on samples supplied by the customer.

Lab Incharge
Civil Tech Labs

CIVIL TECH LABS BANGALORE

CIVIL TECH LABS
5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027
Ph: 080 - 4114 2867, Email: civiltechlabs@gmail.com

TEST REPORT

GRADATION TEST ON SEMI DENSE BITUMINOUS CONCRETE MIX GRADE - 2

Name & Address of the Customer	AEE, Byatarayanapura Sub Division, BBMP
Name of Work	Improvements to Roads and Drains at Bharathnagara main road in Ward No.06 in Thanisandra Village Limits.
Name of the Agency	M/s. K. R. I. D.L.
Date of Testing	24/09/2014
Technical Reference	IS : 2386(Part I)–1963 (Reaffirmed 2011)

	Sample-2		
IS Sieve Designation (mm)	**% By Weight Passing IS Sieve as per MORTH (4th Revision) Table 500-15 for SDBC Grade-2**	**Actual % By Weight Passing IS Sieve**	**Remarks**
13.2	100	**100**	**Satisfies the requirements**
9.5	90-100	**98.8**	
4.75	35-51	**44.6**	
2.36	24-39	**28.8**	
1.18	15-30	**22.1**	
0.3	9-19	**15.9**	
0.075	3-8	**6.1**	

Note:

1. The results relate only to the items tested.
2. Report shall not be reproduced except in full, without the written approval of the lab.
3. Any correction invalidates this report.
4. The results are based on the test conducted on samples supplied by the customer.

Lab Incharge
Civil Tech Labs

CIVIL TECH LABS BANGALORE

CIVIL TECH LABS
5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027
Ph: 080 - 4114 2867, Email: civiltechlabs@gmail.com

TEST REPORT

TEST ON WMM MIX

Name & Address of the Customer	AEE, Byatarayanapura Sub Division, BBMP
Name of Work	Improvements to Roads and Drains at Bharathnagara main road in Ward No.06 in Thanisandra Village Limits.
Name of the Agency	M/s. K. R. I. D.L.
Date of Testing	22/09/2014
Reference	MORTH Table 400-11

IS Sieve Designation (mm)	% By Weight Passing IS Sieve	Actual % By Weight Passing IS Sieve	Remarks
53	100	100	**Satisfies Requirements**
45	95-100	98.5	
22.4	60-80	74.9	
11.2	40-60	55.2	
4.75	25-40	36.4	
2.36	15-30	22.8	
0.6	8-22	17.9	
0.075	0-8	6.2	

Note:

1.The results relate only to the items tested.

2.Report shall not be reproduced except in full, without the written approval of the lab.

3.Any correction invalidates this report.

4.The results are based on the test conducted on samples supplied by the client.

CIVIL TECH LABS BANGALORE

Lab Incharge
Civil Tech Labs